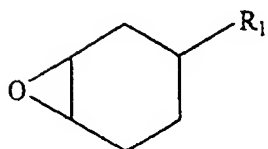


Claims

1. A method for producing coated electrical wires, characterized in that coating is carried out using UV-curable baking enamels which comprise
 - a) one or more oxirane-based binders,
 - b) one or more UV crosslinking catalysts,
 - c) if desired, reactive diluents,
 - d) if desired, chain transfer agents, and
 - e) further customary additives.
2. The method of claim 1, characterized in that baking enamels are used containing
 - a) 50%-95% by weight of oxirane-based binders,
 - b) 1%-10% by weight of UV crosslinking catalysts,
 - c) 0-80% by weight of reactive diluents,
 - d) 0-40% by weight of chain transfer agents, and
 - e) 1%-8% of further additives.
3. The method of either of the preceding claims, characterized in that baking enamels are used containing
 - a) 60%-93% by weight of oxirane-based binders,

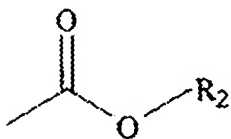
- b) 2%-6% by weight of crosslinking catalysts,
- c) 0-70% by weight of reactive diluents,
- d) 0-30% by weight of chain transfer agents, and
- e) 1%-3% of further additives.

4. The method of any one of the present claims, characterized in that, as baking enamel, cycloaliphatic oxirane compounds are used of the general form

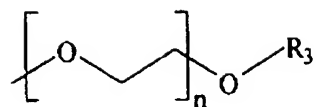


,

where R_1 can be a hydrogen, a carboxylate radical of the indicated form



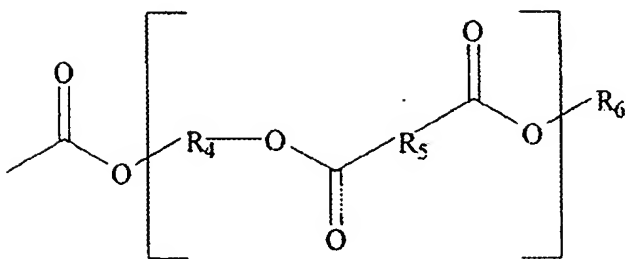
,



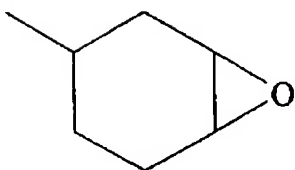
a polyether radical of the formula

with n

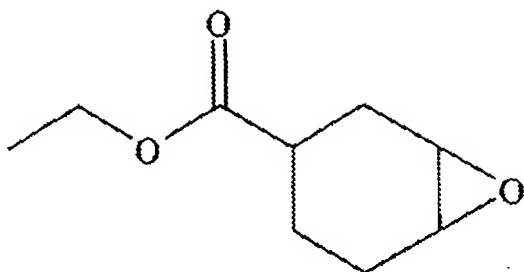
= 1-50 or a polyester radical of the following form



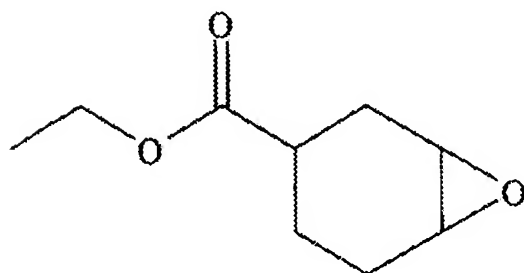
where R₂ is a methyl, ethyl, propyl or butyl radical or a further oxirane compound of the following form



and R₃ is a hydroxyethyl radical or an oxirane compound of the following form

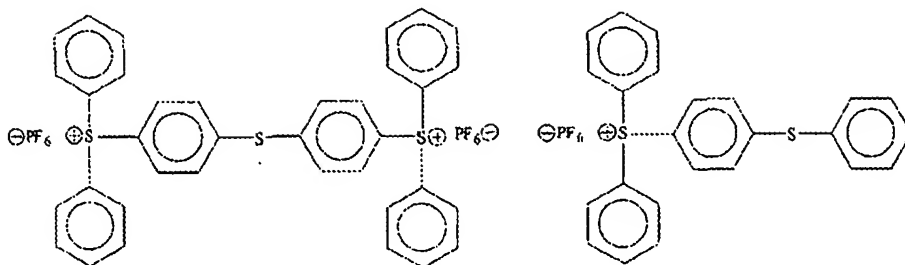


R_4 and R_5 describes an aliphatic hydrocarbon chain of 2-6 carbon units, it being possible in addition for R_5 to be a phenylene radical, and R_6 is a hydroxyalkyl radical having 2-6 carbons or an oxirane compound of the following form



5. The method of any one of the preceding claims, characterized in that at least one photoinitiator suitable for cationic photopolymerization is added.
6. The method of claim 5, characterized in that, as a photoinitiator, a mixed arylsulfonium hexafluorophosphate

salt of the following form



is added.

7. The method of any one of the preceding claims, characterized in that a baking enamel is used whose component a) is prepared using methyl 3,4-epoxycyclohexanecarboxylate.
8. The method of claim 7, characterized in that a baking enamel is used whose component a) has been prepared using polyethylene glycol.
9. The method of any one of the preceding claims, characterized in that baking enamels are used to which low molecular mass oxiranes, oxetanes are added as reactive diluents.

10. The method of claim 9, characterized in that low molecular mass oxiranes, oxetanes are added as reactive diluents.
11. The method of any one of the preceding claims, characterized in that component d) comprises polyester polyols having molecular weights of between 500 and 2000 g/mol.
12. The method of any one of the preceding claims, characterized in that component d) comprises polyester polyols having an average molecular weight of between 500 and 1000 g/mol.
13. The method of any one of the preceding claims, characterized in that component e) comprises additives or stabilizers or mixtures thereof.
14. The method of any one of the preceding claims, characterized in that after the electrical wire has been coated with baking enamel, said enamel is cured by means of ultraviolet radiation.